Decision Notice East Walker Landscape Habitat Improvement Project U.S. Forest Service Bridgeport Ranger District Mineral and Lyon Counties, Nevada

Introduction

This is a decision about balance in the landscape between competing ecosystems - the late successional piñon-juniper [singleleaf piñon pine (*Pinus monophylla*), hereafter referred to as piñon, and juniper (Juniperus spp. primarily Juniperus osteosperma)] ecosystems and the early successional sagebrush ecosystems. These ecosystems were considered to be in better balance in the 1860 pre-European Settlement era than they are today. Fires in that era were smaller and less intense keeping piñon-juniper more or less on the hill tops and sage brush in the broad valley bottoms. This produced a suitable landscape for sage grouse and piñonjuniper dependent species. Fires today fueled by contiguous piñon-juniper canopy cover from ridge top to ridge top take out entire landscapes with very high intensity burns enabling nonnative species to dominate on a landscape scale. Researchers have estimated the Great Basin landscape has three times the piñon-juniper woodlands when compared to the 1860s. Bi-State Sage Grouse (Centrocercus urophasianus) being considered for listing as threatened under the Endangered Species Act are a keystone indicator of this imbalance. By converting up to 20,400 acres of National Forest System (NFS) land across this 1,400,000 landscape from piñon-juniper to sagebrush we will begin to restore this landscape to its former resilience and bring back Bi-State Sage Grouse from the brink of extinction.

In September of 2014, an Environmental Assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) and other relevant federal laws and regulations. The EA discloses the direct, indirect, and cumulative environmental impacts that would result from implementing the East Walker Landscape Habitat Improvement Project (project). This project would improve habitat quality for Bi-State sage-grouse by removing piñon and juniper trees from sagebrush (*Artemisia tridentata*) ecosystems in the project area. The EA is available at the Bridgeport Office (see Contact Information Section below) and is available on the Humboldt-Toiyabe National Forest website at:

http://www.fs.usda.gov/goto/htnf/eastwalker

Since the mid-1800s, the cover, density, and mean age of singleleaf piñon pine and juniper trees, have increased across the Great Basin at the expense of ecosystems dominated by sagebrush and other native shrubs, grasses, and forbs. Piñon-juniper encroachment has replaced shrub-steppe vegetation, leading to increases in hazardous woody fuels, loss of sagebrush habitats for wildlife, decreases in species diversity, reduction or loss of seed banks, decreases in aquifer recharge, and increases in soil erosion rates (Koniak and Everett 1982, Wilcox and Breshears 1994, Davenport et al. 1998, West, 1999, Miller et al. 2000).

The greater sage-grouse is a candidate for protection under the Endangered Species Act. Sage-grouse on the Bridgeport District are part of a distinct population segment (DPS) of the greater sage-grouse. This DPS, called the Bi-State population, was given a higher priority for listing than the greater sage-grouse as a whole due to the presence of more immediate and severe threats. The U.S. Fish and Wildlife Service proposed to list the Bi-State DPS of the greater sage-grouse as threatened in October 2013. Threats include habitat loss caused by development, grazing, invasive species, piñon-juniper encroachment, and wildfire. On April 21, 2015, the USFWS announced the Bi-State population would not be listed as threatened due to interagency efforts under the Bi-State Action Plan and the projects and funding the plan identifies, of which the East Walker Habitat Improvement Project is one.

Expansion of piñon-juniper results in loss and fragmentation of suitable habitat for sage-grouse through removal of understory shrubs, grasses, and forbs needed for adult and chick survival, loss and drying of meadow (brood-rearing) habitat, increases in perching opportunities for raptors (increased predation rate), sage-grouse avoidance of piñon-juniper stands, and increased risk of high severity wildfire (Bi-State Action Plan, 2012).

Project Location

The project area is located approximately 15 miles north of Bridgeport, CA (Figure 1) and includes Bi-State sage-grouse habitat within the Desert Creek-Fales and Mount Grant Population Management Units (PMUs) (Figure 2) in the state of Nevada.

Need for the Proposal

The need for the project is to meet the standards for sage-grouse habitats as identified in the Toiyabe National Forest Land and Resource Management Plan (Forest Plan) (USDA Forest Service 1986) and address priority conservation strategies for Bi-State sage-grouse as defined in the Bi-State Action Plan (Bi-State Technical Advisory Committee 2012).

The project addresses major threats to Bi-State sage grouse within the project area that are identified in the Bi-State Action Plan (Bi-State Technical Advisory Committee 2012). This project will contribute to the overall objectives of reversing the downward trend of this species and eliminating the need to list this species as threatened under the Endangered Species Act.

The project is a critical part of a comprehensive interagency strategy to provide for the long-term conservation of the Bi-State sage-grouse and its habitat through the implementation of a framework of habitat improvement treatments, administrative actions, monitoring, and research actions. The Bi-State Action Plan (Bi-State Technical Advisory Committee 2012) documents the comprehensive set of strategies and actions needed to achieve the effective long-term conservation of Bi-State sage-grouse and its habitat.

As described in more detail in the EA, the 2013 listing proposal identifies the encroachment of piñon and juniper, wildfires and altered fire regime, and predation as threats in the Desert Creek-Fales and Mount Grant PMUs (USDI-Fish and Wildlife Service. 2013).

The East Walker project would address these threats and contribute to the effective conservation of the species and its habitats through the following:

- Reducing piñon-juniper encroachment into sagebrush ecosystems and riparian areas in the project area
- Reducing pinion-juniper stand conversion to Phase 3 density stands
- Maintaining, improving, or restoring habitat quality for Bi-State sage-grouse and other sagebrush-obligate and sagebrush-associated species
- Increasing sagebrush habitat connectivity
- Reducing sage-grouse predation
- Reducing the risk of high severity wildfire

Decision

Based on my review of the EA and project record, I have decided to implement the proposed action as described in the EA with two changes that reduce treatment acres:

- 1. The designation of a piñon pine nut conservation area in treatment unit #7. This area is approximately 1,700 acres in size. (See figure 4). The objective of this area will be to sustain a stand density and age class most appropriate for pine nut production in perpetuity.(See figure 4)
- 2. The removal of approximately 7, 600 acres of the newly designated Wovoka Wilderness from the treatment area.

These changes will make approximately 20,400 acres of NFS land available for treatment. (See Table 1 and figure 3.)

Table 1 - Acres of vegetation type within the project area, data collected as part of the Walker River Watershed project (Broyles 1998)

Vegetation Type	Acres within the Project Area
Shrubland with less than woodland	
Phase 1 encroachment	4700
Woodland succession Phase 1	5600
Woodland succession Phase 2	9000
Woodland succession Phase 3	1000
Total (rounded to nearest 100)	20,400

The changed proposed action has been designed to improve habitat quality for Bi-State sage-grouse by removing piñon-juniper encroachment into sagebrush ecosystems, sustain traditional cultural practices, and sustain wilderness character. The treatments will also concurrently reduce fuels in the project area and reduce the threat of high severity wildfire.

I find, based on a review of the EA and project record, that the proposed action has no significant impacts requiring the preparation of an Environmental Impact Statement prior to the issuance of my decision to implement (See Finding of No Significant Impact Section of the EA - pgs. 42-44).

Decision Rationale

I have selected the proposed action based on the following rationale:

- The decision comprehensively addresses the need for action. The selected action responds to the need to meet the standards for sage-grouse habitats as identified in the Toiyabe National Forest Land and Resource Management Plan (1986) as amended. It also addresses priority conservation strategies for Bi-State sage-grouse as defined in the Bi-State Action Plan (2012).
- The project design features adopted in the selected alternative address potential adverse environmental impacts, and comments and concerns raised both by the public and interdisciplinary team members during the development and analysis of the project. In developing the project design features and analyzing the environmental consequences of the proposed action, potential impacts to soils and water, vegetation, wildlife, recreation, wilderness, inventoried roadless areas, sensitive plants, noxious/invasive weeds, fire and fuels, and cultural resources were considered in the analysis.
- The decision addresses concerns raised by members of local tribes regarding harvesting of pine nuts. Specifically, I have set aside a portion of unit #7 for the purpose of pine nut gathering. (See figures 3 and 4) The ability of tribes to continue practicing their traditional ceremonies and harvesting will continue.
- The decision takes into account the newly designated Wovoka Wilderness by removing all treatments within the boundary of the wilderness. (See figure 5.)
- The decision allows for commercial harvesting and use of wood biomass in a manner that could provide economic benefits to the nearby local communities

Other Alternatives Considered

No Action Alternative

Under the "No Action" alternative, no treatment would be proposed, and conifer encroachment would be expected to continue within the project area. This alternative is analyzed in detail in the Environmental Assessment.

Selective Hand Cutting

Under this alternative, hand cutting of piñon and juniper trees would occur within the treatment units. Planned treatment would only include lop and scatter, and cut material would be left onsite. No pile burning, mechanized removal, fuelwood removal, or seeding/planting would occur. All mature trees would be retained. All treatment areas would be rested from livestock grazing until sufficient height, density, and structural complexity (of the shrub and grass communities) is present to provide for sage-grouse nesting. Livestock use would not be shifted into other allotments during the rest period.

This alternative was considered but eliminated from detailed analysis because it was determined to be ineffective at meeting the need for the project to maintain, enhance, and/or expand Bi-State sage-grouse habitat.

Removing options such as mechanized removal, chipping, pile burning, and fuelwood removal would mean that all cut material would be left onsite in all cases. In areas with denser trees, such as Phase 2, leaving a large amount of down material onsite would make the units unusable to sage-grouse. Heavy amounts of slash would also inhibit the recovery of sagebrush, grass and forb which would not improve habitat for Bi-State sage-grouse and would increase the probability of a high intensity wildfire that would decrease site resistance to being taken over by exotic annual grasses. If the site is lost to exotic annual grasses it may never recover to a sagebrush ecosystem.

Leaving mature trees would defeat the objective of restoring good quality sage grouse habitat. This practice would not increase nesting habitat and cover needed for nest/brood survival from raptors. It would also leave a long-term nearby seed source for future conifer re-invasion.

Hand cutting is part of the proposed action and is appropriate in some locations.

Shifting livestock use is an entirely appropriate practice and restricting this practice does not further the purpose and need of the proposed action.

Original Proposed Action

The original proposed action was developed in 2013 and sent out for public comment in April 2013. This proposal had 7 units, totaling 34,600 acres. The following treatments were proposed:

- Lop and Scatter—Hand crews would use chainsaws and/or hand tools to fell trees and lop limbs from trees. Slash would be scattered to within 18 inches of the ground in natural openings to facilitate decomposition.
- Cut and Pile Burn—Hand crews would use chainsaws and/or hand tools to fell trees within the treatment unit. Slash, and possibly whole trees (bucked up), would be piled. Piles would be burned under favorable conditions once the slash has cured.
- Mastication—Trees would be ground using wheeled or tracked mastication vehicles. Complete removal of all trees or thinning (select trees would be ground) may occur within an area.
 Masticated material would be spread and left onsite to decompose naturally.

• Prescribed Fire—Prescribed fire treatments may include ground ignition (drip torches and or flares), aerial ignition (helicopter/helitorch and or Plastic Sphere Dispenser [PSD]), and management of naturally occurring wildfires for resource benefits.

Commercial and Personal Use Fuelwood Removal—Personal use fuelwood removal permits and commercial fuelwood contracts would be sold to cut and remove piñon pine and juniper in designated areas. Slash would be lopped and scattered or piled by hand and burned under favorable conditions once the slash has cured.

• Seeding Native Species—a native species seed mix appropriate for the site and collected locally when possible may be used if native recruitment is less than desired following treatment. Seeds would be certified "weed free" and seeding would occur through hand, mechanical, or aerial application.

Based on feedback from the public and other agencies, this proposal was modified to include fewer acres. The project area was also enlarged to the north and the units spread out. The use of prescribed fire was limited to only include pile burning because prescribed fire would eliminate sage brush from the burned area, significantly prolongs recovery of the site as sage-grouse habitat and possess an increased risk of annual exotic grass invasion. The original proposed action was dropped from detailed consideration due to the similarities between it and the current proposed action.

Passive Restoration

Western Watersheds submitted an alternative that would focus on "passive restoration" to improve age-grouse habitat. It consisted of the following elements.

- Protect remaining relatively intact sagebrush habitats and arid forest habitats. Enable
 passive restoration of lands "at risk" of weed invasion and/or suffering degradation or
 facing further losses of native species. This will better buffer these lands from adverse
 impacts of climate change effects, and allow species to potentially move upward in
 elevation. The agency must act to manage lands as an important stronghold for
 sagebrush species.
- Provide for active restoration. Active restoration specifically includes the removal of harmful livestock facilities (and often linked roads) or other developments that may be damaging important, sensitive and imperiled species habitats, species populations, and watershed and other ecological processes. Actions include removal of harmful fences and water developments (wells, pipelines, troughs, water haul sites no water hauling can be allowed), salt/supplement sites, and associated roading or other disturbance. These sites of more intensive livestock disturbance (and often associated motorized activity) serve as epicenters for initial weed invasion and then subsequent outward spread including by livestock as weed vectors, and in the trampling and other disturbance livestock cause across arid landscapes. The concentrated disturbance at these sites promotes degradation and weeds. The spread of weeds outward from these sites incrementally eats away at the fabric of the sagebrush and arid and ecosystem. It degrades crucial habitat components required by sage-grouse, pygmy rabbit and other wildlife.

These disturbed sites promote habitat for nest and egg predators that are a particular problem to sage-grouse or migratory birds. Examples of active restoration to address this: Restoration of sage-grouse nesting, brood rearing, winter habitat where habitats are altered and degraded by facilities, developments and linked roading. See Braun 1998, Connelly et al. 2004, Braun 2006, Knick and Connelly 2011, Manier et al. 2013.

• Provide for active restoration of crested wheatgrass seedings, past sagebrush destruction projects like mowing/Lawson aerating, etc. and cheatgrass or other exotic species areas. Understories must be protected from undergoing further weed expansion. Under no circumstances should you undertake any mowing, hacking, herbicide thinning (like Tebuthiuron), Lawson aerating, or any other destruction of native sagebrush or other shrub vegetation here. Trees must be hand cut, to reduce disturbance and weed spread, and also adverse effects of herbicide use, as well.

This alternative was considered but eliminated from detailed analysis because:

- It included actions that were outside the scope of the purpose and need. Specifically it included removal of livestock grazing improvements, and removal of livestock from the project area, and restoration of crested wheat seedings. None of these components would meet the goals and objectives of treating pinyon and juniper encroachment.
- While this alternative did allow for hand cutting, only using this method would substantially limit the amount of acreage that could be treated.

Overall, this alternative was determined to be ineffective at meeting the need for the project to maintain, enhance, and/or expand Bi-State sage-grouse habitat. Without addressing the conifer expansion threat, all other actions would be ineffective.

Public Involvement

Notice of this project was published in the Schedule of Proposed Actions (SOPA) beginning on April 1, 2013 and continuing to the present. A Notice of Proposed Action (NOPA) was distributed on April 4, 2013 with notification that a Categorical Exclusion was being prepared and requesting comments on the proposed action. A legal notice advising of the availability of the NOPA and requesting review and comments was published in the Reno Gazette-Journal, the newspaper of record, on April 4, 2013. The 30-day comment period on the proposed action ended on May 3, 2013. The Forest received comments from 9 organizations and individuals on the NOPA during the comment period.

After reviewing comments received and based on interdisciplinary team input and recommendations, the deciding official determined that the project would be analyzed under an environmental assessment instead of a categorical exclusion. A letter was distributed to everyone who commented on the project on May 5, 2014 detailing the change from a categorical exclusion (36 CFR 215) to an environmental assessment (36 CFR 218), and the resulting change from an appeal period to an objection process. Two additional comment letters were received from individuals in response to the letter. All comments submitted were analyzed, summarized, and considered in the preparation of the EA.

The objection period for this EA was initiated on November 3rd, 2014. One objection was received and responded to by providing instructions to the Bridgeport Ranger District. This Decision notice incorporates additions made in response to those instructions.

Tribal Consultation

During this analysis the following tribes were contacted:

- Washoe Tribe of Nevada and California
- Bridgeport Indian Colony
- Yerington Paiute Tribe
- Walker River Paiute Tribe

The opportunity for tribal participation in the analysis of this project began on April 10, 2012, and continued through the entire analysis process. Continued consultation will also be a part of project implementation through the East Walker Programmatic Agreement (PA). As part of this process, which included field trips, the importance of maintaining traditional pine nut gathering areas was identified and approximately 1,700 acres were excluded from sagebrush restoration as a piñon pine nut conservation area in treatment unit #7 (See figure 4) for tribal cultural purposes as part of this decision. (See the East Walker Cultural Specialist Resource Report in the project record.)

An informational field trip with members and staff of local tribes was held on September 9, 2014. A councilperson from the Yerington Paiute Tribe attended along with tribal members. The Walker River Paiute tribe sent tribal members and staff. The Bridgeport Indian Colony sent its environmental staff officer.

Of the four tribes that have participated in tribal consultation two of the tribes Walker River Paiute and Yerington Paiute have lodged formal tribal resolutions that oppose the cutting and removal of pinyon pine.

On April 30, 2014 the Yerington Paiute Tribe Resolution NO:RY14-12, served notice entreating an immediate cease and desist order with a notice to the Secretary of the Interior, US Senate Select Committee on Indian Affairs and the tribes' respective Congressional Delegation. The tribe reiterated its "opposition to any further removal and destruction of the pinion pine trees located on forest lands inclusive of the pinenut harvesting areas of the Toiyabe National Forest which is entrusted through the Bridgeport Ranger District and staff.

May 7, 2014 the Yerington Paiute Tribe requested a congressional intervention to stop any further pinion pine tree cutting or clearing in the Desert Creek and Sweetwater forest areas of the US Toiyabe National Forest, Bridgeport Ranger District.

The Yerington Paiute Tribe has formally cut off consultation with the Forest Service on this topic.

The Walker River Paiute Resolution, RESOLUTION NO. WR-10-2015, dated February 20, 2015 strongly opposes pinion pine cutting for perpetuity over a much broader landscape that includes and far exceeds the scope of this analysis area.

The Bridgeport Indian Colony Tribe remains consistent to request that consultation continue with an "on the ground" approach. Further the tribe has requested that piñon pine removal be avoided where traditional pine nut harvesting sites exist, especially where there is an ease of access; to ensure that elders can continue to participate in pinenut harvest tradition.

Findings Required by Other Laws and Regulations

National Forest Management Act

This decision is consistent with the standards, guidelines, and management direction included in the Toiyabe National Forest Land and Resource Management Plan (as amended) and maintains viable populations of native species (See project Biological Evaluation) which meets the requirements of the National Forest Management Act of 1976.

Clean Air Act of 1970, as amended

This decision is in compliance with the Clean Air Act, 1977 as amended. All required permits will be secured to ensure compliance with federal and state laws. Pollutant emissions will be within state and federal standards. Burning permits are issued and administered by the Air Quality Control Board.

Clean Water Act of 1977, as amended

The Clean Water Act (CWA) is a federal stature that requires states and tribes to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 U.S.C. 466 et seq., Title I, Section 101). The project does not involve the filling, alteration, or modification of any waterway or riparian area. This decision includes implementing project design features to ensure management activities maintain or improve watershed conditions (EA Water and Soils pg. 13).

Endangered Species Act of 1973, as amended

The Endangered Species Act requires that federal activities do not jeopardize the continued existence of any species federally listed or proposed as threatened or endangered, or result in adverse modification to such species' designated critical habitat.

The Greater sage-grouse, Bi-State Distinct Population Segment, is present in the project area. The USFWS proposed this species for listing as threatened in October 2013. A biological assessment was prepared to evaluate potential effects of the proposed action on Bi-State Sage-grouse. A determination of may affect but is not likely to adversely affect the species or its critical habitat was made for the Bi-State sage-grouse. The Biological Assessment was submitted to the U. S. Fish and Wildlife Service for concurrence as part of informal consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA).

Environmental Justice (E. O. 12898)

Federal agencies are directed to identify and address, as appropriate, any disproportionately high and adverse human health or environmental effects on minority populations and low income populations. The decision will not result in unequal impacts on minority populations and low income populations and complies with E. O. 12898. Changes in access and use of National Forest Systems lands will be equal to all people.

Floodplain Management (E. O. 11988)

This executive order requires the Forest Service to provide leadership and to take action to (1) Reduce adverse impacts associated with occupancy and modification of floodplains and reduce risks of flood loss; (2) reduce impacts of floods on human safety, health, and welfare; and (3) restore and preserve the natural and beneficial values served by flood plains. This decision complies with E. O. 11988 by maintaining floodplain integrity through project design features.

Protection of Wetlands (E. O. 11990)

This executive order requires the Forest Service to take action to address destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. This decision complies with E. O. 11990 by protecting wetlands through project design features.

Migratory Bird Treaty Act and E. O. 13186

This decision complies with the Migratory Bird Treaty Act and E. O. 13186. The proposed action and associated project design features meet the agency obligations as defined under the January 16, 2001 Memorandum of Understanding between the Forest Service and USFWS designed to complement E. O. 13186.

National Historic Preservation Act of 1966

This decision complies with the National Historic Preservation Act of 1966. A programmatic agreement between the Humboldt-Toiyabe National Forest (HTNF) and the Nevada State Historic Preservation Office (SHPO) has been put in place that will guide compliance during project implementation. This agreement includes methods of consultation between the Forest Service, the SHPO, and area tribes to limit or avoid effects to historic properties. Design features from the programmatic agreement are included in the project design features associated with the proposed action.

Archeological Resources Protection Act of 1979

This act is for the protection of archaeological resources and sites that are on public lands. The proposed action will not conflict with this law. The programmatic agreement described above will ensure protection of cultural resources as required by law.

Native American Graves & Repatriation Act of 1990

The proposed action will not conflict with this law. Provisions are included in the project design that will provide for protection of Native American burial sites and Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands that may be discovered during project activities.

Pre-Decisional Opportunity to Object

This proposed decision was subject to objection pursuant to 36 CFR 218, Subparts A and B. The legal notice for the 45-day objection period was published in the Reno Gazette-Journal on November 2, 2014. One objection was received by the Forest Service. In accordance with 36 CFR 218, the objection was reviewed and the objection reviewing officer's written response was provided to the objector on February 2, 2015.

This response included instructions to the District Ranger for supplementing the analysis in order to ensure compliance with applicable laws, regulations and Forest Service policies.

These instructions were complied with and concurrence was received from the Objection Reviewing Officer that all instructions have been addressed and that this Decision Notice could be signed. Per 36 CFR 218.11, no further review from any other Forest Service or USDA official of the reviewing officer's written response to an objection is available.

Implementation

This project may be implemented immediately upon signature.

Contact Information

Jeff Ulrich, Bridgeport District Ranger Bridgeport Ranger District Highway 395 HC 62 Box 1000 Bridgeport, California 93517 (760) 932-7070

Signature

Bladgeport District Ranger

Humboldt-Toiyabe National Forest

Illrech

4/24/2015

References

Bi-State Technical Advisory Committee Nevada and California. 2012. Bi-State Action Plan Past, Present, and Future Actions For Conservation of the Greater Sage-Grouse Bi-State Distinct Population Segment.

Bi-State Technical Advisory Committee Nevada and California. 2012. Bi-State Sage- Grouse Preliminary Priority Habitat Map. A White Paper Prepared by the Bi-State Sage- Grouse Technical Advisory Committee (TAC).

Davenport, D.W.; Breshears, D.D.; Wilcox, B.P.; and Allen, C.D. 1998. Viewpoint: Sustainability of pinion-juniper ecosystems: A unifying perspective of soil erosion thresholds. J. Range Manage. 51: 231-240.

Koniak, S.; and R.L. Everett. 1982. Seed reserves in soils of successional stages on piñon woodlands. American Midland Naturalist. 102:295-303.

Miller, R.F.; Svejcar, T.J.; Rose, J.A. 2000. Impacts of western juniper on plant community composition and structure. Journal of Range Management. 53: 574-585.

USDA-Forest Service, 1986. Toiyabe National Forest Land and Resource Management Plan.

West, N. E. 1999. Distribution, composition, and classification of current juniper-piñon woodlands and savannas across western North America. Pp. 20-23 in S. B. Monsen and R. Stevens, compilers. Proceedings: ecology and management of piñon-juniper communities within the Interior West. USDA Forest Service RMRS-P-9.

Wilcox, B.P.1994. Runoff and erosion in inter-canopy zones of piñon-juniper woodlands, New Mexico. J. Range Manage. 47:285-295.

Figure 1. Project location

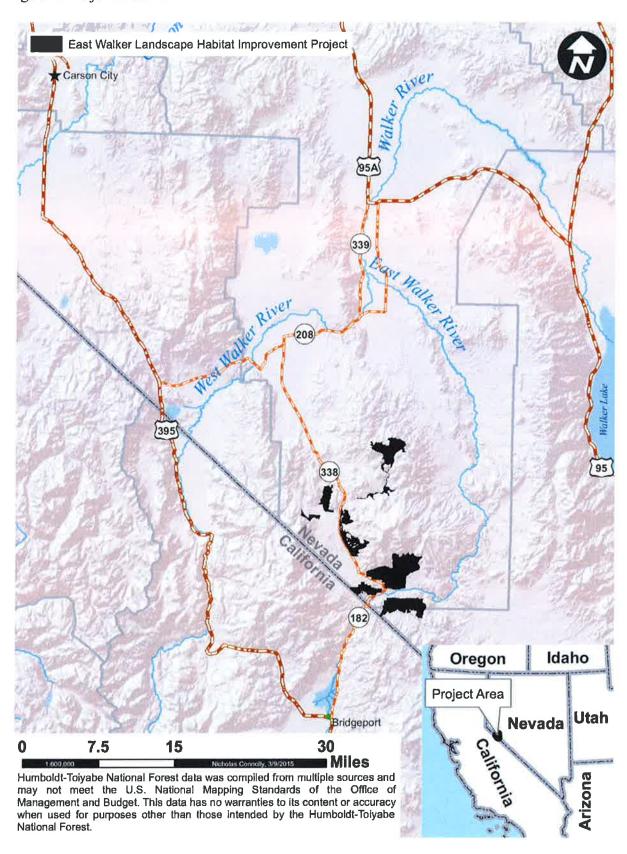


Figure 2. Bi-state Sage-grouse Preliminary Priority Habitat (PPH)

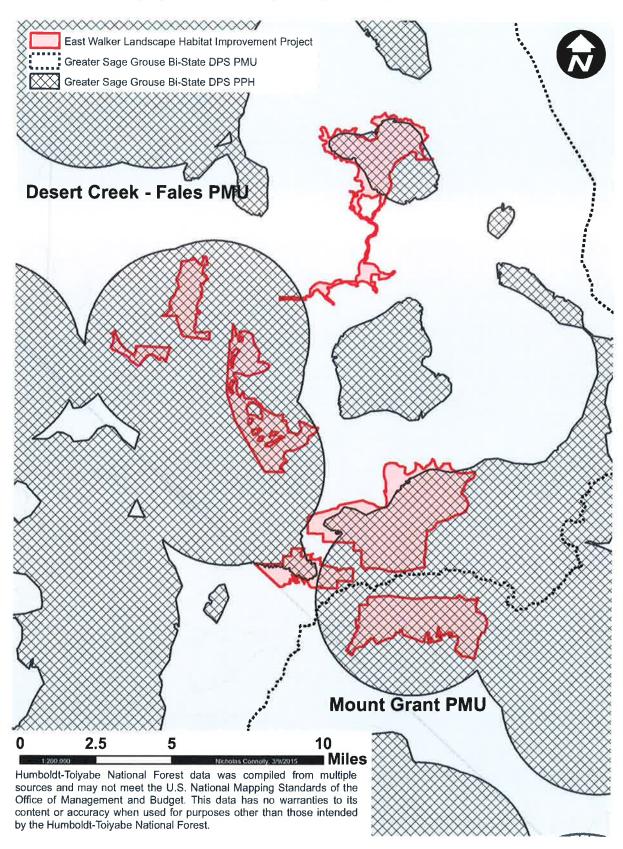


Figure 3. Treatment Units

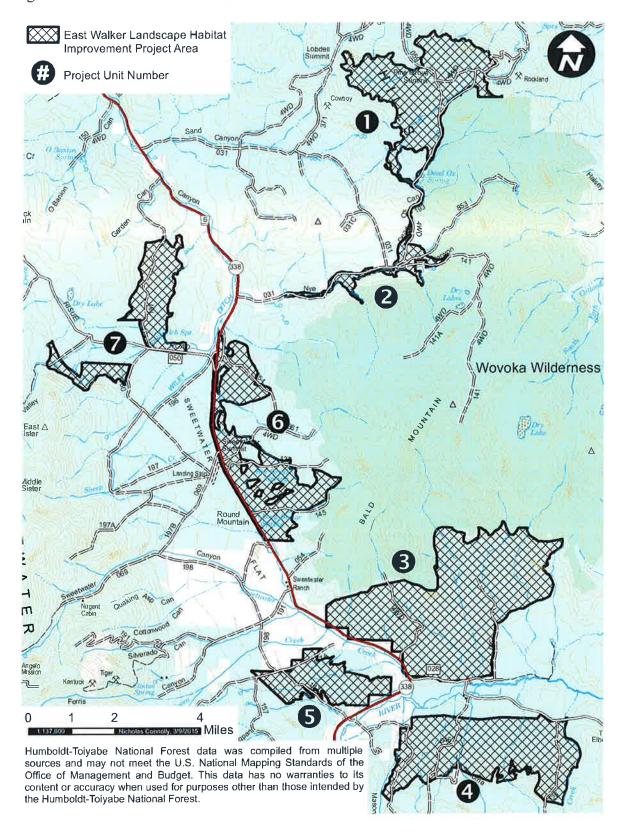


Figure 4. Pine Nut conservation Area

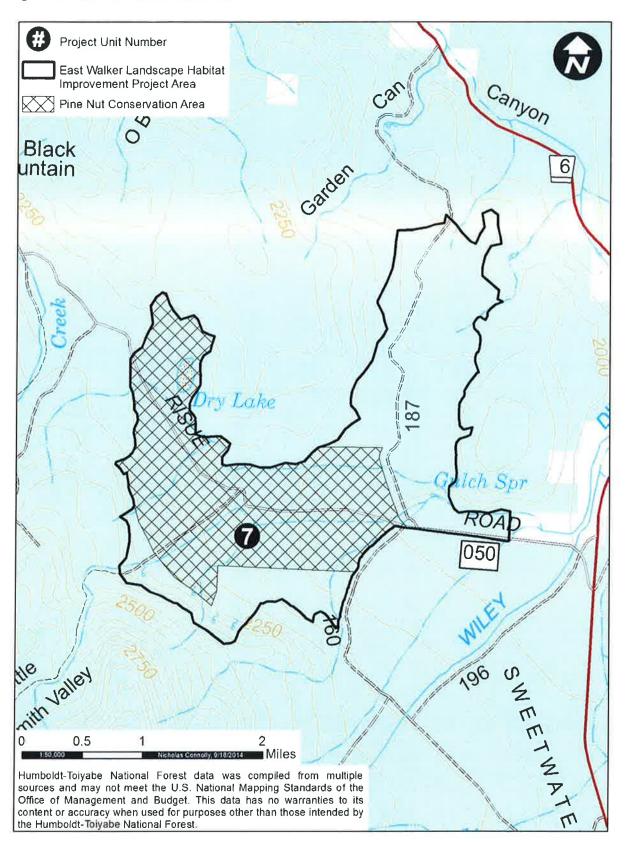
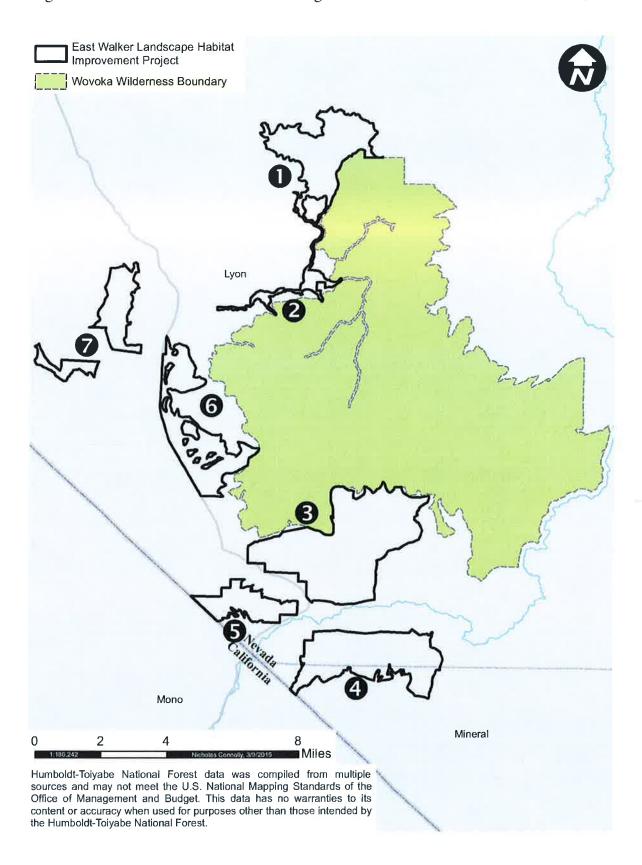


Figure 5. Wovoka Wilderness with remaining treatment units outside of the wilderness.



USDA NONDISCRIMINATION STATEMENT

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.